

APR 22 2008



Permit Application for Solid Waste Disposal Facilities

**West Hawaii Sanitary Landfill
Permit Renewal with No Modifications
71-1111 Queen Ka'ahumanu Highway
Waikoloa, HI 96738**

Prepared for:

Waste Management of Hawaii, Inc.
97-460 Farrington Highway
Kapolei, Hawaii 96707

Prepared By:

Shepherd Engineering Design Co., Inc.
4000 North Classen, Suite 110-S
Oklahoma City, OK 73118

Version: April 2008



DESIGN COMPANY INCORPORATED

Table of Contents

GENERAL INSTRUCTIONS

PERMIT APPLICATION

ATTACHMENTS

P-1: Location Drawings

P-2: Public Interest

P-3: Site Analysis, Facility Design, Operating Plan, and Groundwater and Leachate Monitoring Plan

P-4: Closure and Post-Closure Plan

P-5: Zoning Clearance Form

P-6: Property Owner Approval Form

GENERAL INSTRUCTIONS

STATE OF HAWAII
DEPARTMENT OF HEALTH
ENVIRONMENTAL MANAGEMENT DIVISION
SOLID AND HAZARDOUS WASTE BRANCH

INSTRUCTIONS FOR FILING A PERMIT APPLICATION FOR
SOLID WASTE MANAGEMENT FACILITIES
(NOT FOR PERMIT BY RULE)

GENERAL INSTRUCTIONS

1. State of Hawaii, Department of Health, Administrative Rules, Title 11, Chapter 58.1-04, "Solid Waste Management Control," states that it shall be unlawful for any person to establish, modify, or operate any solid waste management facility or a part thereof or any extension or addition thereto without a permit issued by the Department.
2. Complete this application with the required attachments. The application package consist of the application form; Attachments P-1 through P-6 for the specific facility type; the Supplemental Attachment P-3 for Innovative Technologies, if the facility is utilizing an innovative technology; and the corresponding filing fee. If the facility is an integrated facility, such that it utilizes multiple solid waste management operations (i.e. landfill and transfer station; medical and foreign waste treatment; recycling and composting), then the information provided in the application package shall include information requested in all pertinent Attachments, and the sum of all applicable filing fees.
3. Submit the original application package at least one hundred eighty (180) days prior to the proposed start or modification date of construction/operation, or 180 days prior to the expiration of an existing permit for continued operation to:

Department of Health
Environmental Management Division
Solid and Hazardous Waste Branch
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Completed applications and attachments are necessary in order that the review and analysis of your application for a solid waste management permit not be delayed. (Applications for major facilities such as municipal solid waste landfills may require a greater review period.)

4. Confidential Information. Section 342H-14, Hawaii Revised Statutes, states that permit applications and reports on the disposal or management of solid waste submitted to the Department shall be made available for inspection by the public during established office hours unless such report contain information of a confidential nature concerning **secret processes or methods of manufacture**. If you feel the information, or a part thereof, that you submit to the Department warrants confidentiality, the applicant shall identify in writing the specific information asserted to be confidential, including a justification of that assertion for Department review. All information not asserted to be confidential by the applicant shall be treated as public report.

5. A filing fee, in accordance with the attached fee schedule, must be paid by the applicant at the time the application is submitted and shall not be refunded nor applied to any subsequent application following final action of cancellation or denial for an application.
6. Checks or money orders shall be made payable to the State of Hawaii.
7. A request for a duplicate permit shall be made in writing to the Director within ten days after the destruction, loss, or defacement of a permit. A fee of \$50.00 shall be charged and submitted with the request.
8. The Director may require complete and detailed plans or reports (i.e. design plans, engineering reports, site assessment, sampling and analysis) on existing or proposed facilities, or modifications thereto. The plans or reports shall be made by a competent person acceptable to the Director at the expense of the applicant or owner.
9. If you have any questions, please call the Solid Waste Section at (808) 586-4226. Our staff is available to assist you in understanding exactly what information and detail is requested in the attachments.

FEE SCHEDULE

Every applicant for a permit shall submit a filing fee in accordance with the following fee schedule:

A. Solid Waste Disposal Facilities			
1.	Landfills		
	Greater than twenty tons/day		\$1,000
	Less than twenty tons/day		250
2.	Incinerators		
	Greater than twenty tons/day		1,000
	Less than twenty tons/day		250
B. Solid Waste Storage, Handling and Processing Facilities			
1.	Transfer Stations		
	Less than one hundred tons/day		100
	Over one hundred tons/day		250
2.	Recycling and materials recovery facilities		50
3.	Salvage facilities		50
C. Solid Waste Reclamation Facilities			
1.	Composting		50
2.	Remediation		250
D. Special Wastes Facilities			
1.	Special waste landfill		500
2.	Medical wastes		100
3.	Foreign wastes		100
4.	Other non-specific technologies		300

PERMIT APPLICATION

**STATE OF HAWAII
DEPARTMENT OF HEALTH
ENVIRONMENTAL MANAGEMENT DIVISION
SOLID AND HAZARDOUS WASTE BRANCH**

**PERMIT APPLICATION FOR
SOLID WASTE MANAGEMENT FACILITY
(NOT FOR PERMIT BY RULE)**

This permit application was developed in accordance with the requirements of Hawaii Administrative Rules (HAR), Title 11, Chapter 58.1. **In order for this application to be considered complete, completed Attachments P-1 through P-6 and filing fee must accompany this application form.** Please read the general instructions before completing.

I. Type of Application (check all that apply)

- A. ☐ Permit to establish a new facility
B. ☐ Permit to modify an existing facility
C. ☒ Permit renewal with no modification
D. ☐ Permit renewal with modification
E. ☐ Change in ownership
F. ☐ Other

Describe _____

II. Existing pollution control permits and/or variances issued to facility:

Current Permit: LF-0072-93

III. General Information

A. Name and address of the owner of the solid waste facility:

County of Hawaii – Department of Environmental Management, Solid Waste Division
25 Aupuni Street
Hilo, HI 96720 **Telephone: (808) 961-8083**

B. Name and address of the operator of the solid waste facility:

Waste Management of Hawaii, Inc.
92-460 Farrington Highway
Kapole, HI 96707 **Telephone: (808) 668-2985**

C. Name and address of individual authorized to act for the owner and operator:

D. Name and address of landowner (If landowner is other than the owner/operator of the solid waste facility, include Attachment P-6):

N/A

Telephone:

E. Name and address of lessee, if appropriate:

N/A

Telephone: _____

F. Facility Name and Location:

Name: West Hawaii Landfill

Address: 71-1111 Queen Kaahamanu Highway

Puuanahulu, North Kona, HI 96738

Tax Map Key 7-1-03:01

(if appropriate)

Latitude: 19 ° 53 ' 30 " N

Longitude: 155 ° 52 ' 10 " W

UTM Coordinates: Zone 5 East 99,500 North 2,201,900

G. Type of Facility (check all that apply)

1. Landfill

MSW (daily tonnage 385)

X

C&D (daily tonnage _____)

2. Incinerator (daily tonnage _____)

3. Solid Waste Processing

Transfer Station (daily tonnage _____)

Recycling/materials recovery _____

Salvage _____

4. Reclamation Facility

Composting _____

Remediation _____

5. Special Waste

Special waste landfill _____

Medical waste _____

Foreign waste _____

Other Non-Specified Technology _____

Please briefly explain _____

6. Waste Treatment/Processing/Storage for Disposal _____

IV. Normal Operating Schedule

A. Shifts Worked: _____ HOURS OF DAY

1. From: 7:00 am To: 4:30pm

2. From: _____ To: _____

3. From: _____ To: _____

B. Days per week: 7

C. Weeks per year: 52

D. Operation is seasonal or irregular, describe: _____

- V. For Permit Renewals and Modifications: Is the existing facility in compliance with Hawaii Revised Statutes (HRS) 342G, 342H and 342I; and Hawaii Administrative Rules (HAR), Title 11, Chapter 58.1, "Solid Waste Management Control"?

Yes X No

If the existing facility is not in compliance with HRS 342G, H and/or I; and/or HAR, Title 11, Chapter 58.1, "Solid Waste Management Control", provide a detailed implementation plan as an attachment to the application. The implementation plan should include but is not limited to areas of noncompliance, reason for noncompliance, proposed actions towards achieving compliance, and implementation schedule, as an attachment to the application.

- VI. Certification by owner and operator:

We, Bobby Jean Leithhead Todd Director, DEM (owner)
(name) (title)

and Joseph Whelan General Manager (operator)
(name) (title)

certify that we have knowledge of the facts hereby submitted and that the same are true and correct to the best of our knowledge and belief, and that all information not identified as confidential, in nature shall be treated by the Department of Health as public record. We further state that we will assume responsibility for the construction, modification, operation, maintenance, closure and post-closure of the facility in accordance with Hawaii Revised Statutes, 342G, H and I; and Hawaii Administrative Rules, Title 11, Chapter 58.1, and any permit issued thereof. As co-permittees, we understand that we share joint and several liability for compliance with aforementioned statutes, regulations, and permits.

If the owner/operator is a partnership or group other than a corporation or a county, one individual who is a member of the group shall sign the application. If the applicant is a corporation or a county, an officer of the corporation, general manager of the facility, or an authorized representative of the county shall sign the application.

Date: 4/18/08

Owner:

Signature: [Signature]
Title: Director, DEM
Company Name: County of Hawaii
Address: 25 Aieaun. Street
Telephone: 808 961 8083

Date: 4-21-08

Operator:

Signature: [Signature]
Title: General Manager
Company Name: Waste Management of Hawaii, Inc.
Address: 92-460 Farrington Highway, Kapolei, HI 96707
Telephone: (808) 668-2985 Ext. 23

DO NOT WRITE BELOW ---- FOR AGENCY USE ONLY

VII. Date application received: 4/22/08

VIII. Received by: _____

IX. Application number: LF-001-08

X. Evaluating Official: _____

XI. Filing fee attached: Yes ☒ No ☐ CHECK #6924125: \$1,000.00

XII. Plans and specifications attached:		Yes _____	No _____
Attachment P-1	Yes _____	No _____	
Attachment P-2	Yes _____	No _____	
Attachment P-3	Yes _____	No _____	
Attachment P-4	Yes _____	No _____	
Attachment P-5	Yes _____	No _____	
Attachment P-6	Yes _____	No _____	

XIII. Action on application: Approved: _____
 Disapproved: _____
 Conditional Approved: _____

XIV. Date of action on application: _____

XV. Permit number: _____

ATTACHMENT P-2
PUBLIC INTEREST

**ATTACHMENT P-2
PUBLIC INTEREST
SOLID WASTE PERMIT APPLICATION**

Hawaii Revised Statutes (HRS), Chapter 342H, Section 4(c), *Solid Waste Pollution*, requires that the Director of Health approve permits only for those facilities that are in the public interest. This is in addition to those conditions for permit approval as contained in Hawaii Administrative Rules Chapter 11-58.1, *Solid Waste Management Control*. Therefore, the applicant shall submit information regarding the environmental implications of the proposed action, which shall include all relevant and feasible consequences of that action. This information must be submitted by the applicant in the form of a written discussion addressing each of the following major topics:

1. **Environmental impact of the proposed action.** Explain why the facility is in the public interest in terms of the need for the service; the population and area to be served; the characteristics, quantity and source of materials to be processed; the use and distribution of the processed materials and the method of processed residue disposal. Include discussions of the current waste management system, the environmental cost/benefits of the proposed action and the impacts on current and future land use.
2. **Any adverse environmental effects, which cannot be avoided, should the proposed action be implemented.** Discuss any potential impacts the facility may have on public health and the environment from items such as air emissions, leachate, drainage, vector attraction, fires, waste storage and processed residue disposal. Discuss how and to what extent those impacts on public health and the environment will be mitigated through the design and operation of the facility. Discuss plans for emergency operating procedures to protect public health and the environment from unplanned releases.
3. **Alternatives to the proposed action.** Discuss other known alternatives that could feasibly attain the same objective. Explain why they were rejected. Explain why the proposed action represents the Best Practical Technology (BPT). Particular attention must be focused on alternative actions that would reduce or avoid adverse environmental risk and provide a greater cost/benefit to the community. The analysis shall represent a comparative evaluation of the environmental benefits, costs and risks of the proposed action and support the conclusion that it represents BPT.
4. **The relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity.** Discuss the effect the operation will have on the site and on the environment on a long-term basis. Discuss the ultimate use of land and surrounding areas as indicated by local zoning codes. Discuss how plans for emergency procedures, final site closure or other steps may mitigate the long-term effects of pollutants. Discuss the long-term impacts the project may have on other waste management alternatives.
5. **Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.** Identify unavoidable impacts and the extent to which the proposed action makes use of non-renewable resources.
6. **Optimum balance between economic development and environmental quality.** Discuss whether the proposed action promotes the optimum balance between economic development and environmental quality.

7. **Consistency with the State Integrated Solid Waste Management Act (HRS 342G) and the County's Approved Integrated Solid Waste Management (ISWM) Plan.** Address the project's conformance with the State waste diversion goals and hierarchy. Discuss the project's impact on the State's current or proposed waste diversion efforts, and the County's overall integrated solid waste management plan.
8. **Public input relating to the impact of the facility on public health and the environment.** Address any requirements for public comment period or hearing under HRS Chapter 343 (Environmental Impact Statement) or local land use ordinances. The applicant should solicit public input on the proposed project. Public input may be solicited through the use public hearings, public informational meetings coordinated with the appropriate community boards or associations or other approved mechanisms. The location of the meetings should be held in the district in which the project will be located. A copy of the meeting minutes should be submitted to the Department as part of this solid waste permit application.

For municipal solid waste management facilities, a minimum a 30-day public notice is required.

Attachment P-2

Attachment P-2 addresses information regarding the environmental implications of this permit application for renewal with no modification.

1. Environmental impact of the proposed action.

Explain why the facility is in the public interest in terms of the need for the service and the population and area to be served; the characteristics, quantity and source of materials to be processed; the use and distribution of the processed materials and the method of processed residue disposal. Include discussions of the current waste management system, the environmental cost/benefits of the proposed action and the impacts on current and future land use.

Proposed Action. In September 1993, the Hawaii Department of Health (HDOH) approved a 300-acre municipal solid waste landfill permit for the West Hawaii Sanitary Landfill (WHSL). The landfill operator (Waste Management of Hawaii [WMH]) has been landfilling at this location since 1993 and has filled cells 1-7. The West Hawaii Sanitary Landfill at current volumes has 25 years of capacity to serve the needs of the North and South Kona, South Kohala and Kamuela districts. This application is for a Permit Renewal with No Modification.

Environmental Impact of Proposed Action. Currently the West Hawaii Sanitary Landfill (WHSL) is the only landfill site on the west side of the island of Hawaii for Municipal Solid Waste (MSW), construction and demolition waste (C&D), and approved special wastes. The WHSL plays an essential role for the island of Hawaii by providing a site where MSW and other items can legally be placed. Illegal disposal of solid waste could create health hazards from piles of garbage, increase rodent and insect populations and liability for landowners, and decrease property values. It could also result in unkempt areas that would alter the aesthetic quality of the island.

The WHSL accepts MSW as well as non-hazardous special waste from the residents and businesses on the west side of Hawaii. The source of waste includes residential, commercial, and transfer stations. Residential waste consists of waste collected by private haulers and is primarily from single and multi-family households. Commercial waste consists of waste collected by private haulers and the public. Transfer stations consist of waste collected at the 22 transfer stations operated by the County of Hawaii (County of Hawaii 11/15/01)

The site currently receives an average of approximately 385 tons per day of MSW.

2. Any adverse environmental effects, which cannot be avoided, should the proposed action be implemented.

Discuss any potential impacts the facility may have on public health and the environment from items such as air emissions, leachate, drainage, vector attraction, fires, waste storage and processed residue disposal. Discuss how and to what extent those impacts on public health and the environment will be mitigated through the design and operation of the facility. Discuss plans for emergency operating procedures to protect public health and the environment from unplanned releases.

Since this is a Permit Renewal with No Modification, WHSL would have minimal additional impacts on public health and the environment due to existing engineering controls already in place at the landfill.

Air Emissions. The current plan will have no effect on landfill gas production or the landfill gas collection system as it does not change the capacity of the MSW landfill from plans used in the gas system design.

Leachate. Currently, the WHSL has a leachate collection and removal system consisting of a liner, gravel drainage layers and leachate collection piping that directs leachate into collection sumps. The existing leachate collection system has sufficient capacity to accommodate current leachate production rates. In addition, semiannual groundwater monitoring and leachate monitoring will continue to be performed per the site Groundwater and Leachate Monitoring Plan.

Drainage. Currently since the WHSL receives minimal amounts of rainfall, the site has no runoff.

Vector Attraction Prevention and Waste Storage. WHSL will continue to conduct landfill operations in accordance with the site operating manual and other regulatory requirements to ensure vectors are prevented and that waste is placed, compacted and covered in a safe and environmentally secure manner.

Visual Resources. The WHSL has minimal impact on visual resources.

Fire Prevention. Daily operational procedures include compacting and covering the waste to reduce the potential for fires. Daily operations also include the practice of checking incoming loads to prevent potentially combustible material from going into the landfill.

Emergency Operating Procedures. The *Operating Plan* contains all of the necessary information regarding Emergency Operating Procedures. The *Operating Plan* was completed by Waste Management of Hawaii and Earth Tech 2008. Additionally, a *Spill Prevention, Containment, and Countermeasure Plan* documents emergency operating procedures in the event of a fuel or oil spill (Earth Tech 2008). In the event of an emergency, the site's Emergency Coordinator is immediately notified, and following an expedient assessment of the situation shall determine if and what response activities are necessary, implement them and if warranted contact the appropriate agency (ies) to provide notification and documentation.

3. Alternatives to the proposed action.

Discuss other known alternatives that could feasibly attain the same objective. Explain why they were rejected. Explain why the proposed action represents the Best Practical Technology (BPT). Particular attention must be focused on alternative actions that would reduce or avoid adverse environmental risk and provide a greater cost/benefit to the community. The analysis shall represent a comparative evaluation of the environmental benefits, costs and risks of the proposed action and support the conclusion that it represents the BPT.

This is a Permit Application for Renewal with No Modifications. No alternatives are discussed.

4. The relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity.

Discuss the effect the operation will have on the site and on the environment on a long-term basis. Discuss the ultimate use of land and surrounding areas as indicated by local zoning codes. Discuss how plans for emergency procedures, final site closure or other steps may mitigate the long-term effects of pollutants. Discuss the long-term impacts the project may have on other waste management alternatives.

This is a Permit Application for Renewal with No Modifications. Therefore no discussion is needed on this item.

5. Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Identify unavoidable impacts and the extent to which the proposed action makes use of non-renewable resources.

This is a Permit Application for Renewal with No Modifications. Therefore no discussion is needed on this item.

6. Optimum balance between economic development and environmental quality.

This is a Permit Application for Renewal with No Modifications. Therefore no discussion is needed on this item.

7. Consistency with the State Integrated Solid Waste Management Act (FIRS 342G) and the County's Approved Integrated Solid Waste Management (ISWM) plan.

Address the project's conformance with the State waste diversion goals and hierarchy. Discuss the project's impact on the State's current or proposed waste diversion efforts, and the County's overall integrated solid waste management plan.

The WHSL is in compliance with the Integrated Solid Waste Management Plan (1993) and the Updated Integrated Solid Waste Management Plan (2002).

8. Public input relating to the impact of the facility on public health and the environment.

Address any requirements for public comment period or hearing under HRS Chapter 343 (Environmental Impact Statement) or local land use ordinances. The applicant should solicit public input on the proposed project. Public input may be solicited through the use of public hearings, public informational meetings coordinated with the appropriate community boards or associations or other approved mechanisms. The location of the meetings should be held in the district in which the project will be located. A copy of the meeting minutes should be submitted to the Department as part of this solid waste permit application.

This is a Permit Application for Renewal with No Modifications. Therefore no discussion is needed on this item.

References

Harding ESE. 2002 *Update to the Integrated Solid Waste Management Plan for the County of Hawaii* Aiea, Hawaii. December.

R.M. Towill Corporation (R.M. Towill) 1991. *Final Environmental Impact Statement for West Hawaii Sanitary Landfill, Puuanatlulu, North Kona, Hawaii i.* Hilo. October.

ATTACHMENT P-3
SITE ANALYSIS, FACILITY DESIGN,
OPERATING PLAN, AND
GROUNDWATER AND LEACHATE MONITORING PLAN

**ATTACHMENT P-3
SITE ANALYSIS, FACILITY DESIGN, OPERATIONS PLAN
AND GROUNDWATER MONITORING PLAN
MUNICIPAL SOLID WASTE LANDFILL FACILITIES
SOLID WASTE PERMIT APPLICATION**

Submit a Site Analysis, Engineering Report, Operations Plan and Groundwater Monitoring Plan for the facility. The design, construction and operation of the facility shall be in accordance with the most current EPA Technical Guidance document for MSWLFs. Any information requested below that is not applicable should be justified.

1. **Site Analysis.** Submit a site analysis of the facility demonstrating that all siting requirements are met in accordance to Hawaii Administrative Rules (HAR) 11-58.1-13. The site analysis review is intended to prevent the construction of facilities in environmentally inappropriate locations. At a minimum the following topics listed in HAR 11-58.1-13 shall be addressed: airport safety, floodplains, wetlands, fault areas, seismic impact zone, unstable areas, and tidal wave zone.
2. **Facility Design (Engineering Report).** Submit an engineering report that describes the basis of design, with supporting engineering calculations, construction drawings and specifications. The engineering report, and construction plans and specifications shall be prepared under the supervision of a professional engineer licensed in the state of Hawaii. The engineering report should document that the facility design meets the requirements of HAR 11-58.1-14 and includes at a minimum discussions of the following:
 - a. A general description of the facility, including proposed size, capacity, estimate life, and disposal rate of the landfill, vehicle access, and other relevant design concepts.
 - b. Landfill grades. Discussion should include proposed side slopes, landfill stability, and fill sequencing.
 - c. Liner and leachate collection system, including subgrade preparation and operations layer, design that meets the requirements of HAR 11-58.1-14. If proposing an alternative liner design, the applicant shall submit a Point of Compliance Assessment in accordance with HAR 11-58.1-14(b)(1) and (e). Please be aware that the department will require the collection of climatic data to validate leachate generation models. If the applicant wishes to claim exemption from design requirements because it receives less than 20 tons/day, the applicant must also submit the *Application for Small Landfill Exemption*. However, applicants of small landfills must still provide a description of the liner, leachate collection and operations layer utilized or proposed for the facility.
 - d. Leachate and surface water management systems. Discussion should include how the collected leachate will be managed, and the design basis for the surface water collection and management systems.
 - e. Gas collection systems. Explain whether Title V of the Clean Air Act applies to the site, and whether the gas system is designed to meet the requirements of this requirement.
3. **Operations Plan.** Submit an operations plan that provides detailed procedures for landfill operators that complies with the requirements outlined in HAR 11-58.1-15 and 11-58.1-16. The operating requirements include a special and hazardous waste exclusion program, cover material requirements, a disease vector control program, an explosive gases control program, air criteria requirements, access control requirements, run-on and run-off control systems, surface water requirements, a liquids restrictions program, a litter control program, sequencing plan, and record-keeping requirements, and other requirements as deemed necessary by the Director of Health to protect public health and the environment. At a minimum, the Operations Plan shall contain the following elements:

- a. General site description, which shall include information on the location, size, elevation and waste limits of the facility; types of and quantities of waste accepted and received per day; users of the facility; description on the overall utilization of the site; traffic flow, unloading procedures, and method of operation at the landfill; and discussions on the climate and site conditions.
- b. Equipment and personnel requirements should be detailed to include the number and type of equipment and the personnel with their respective titles needed to operate the facility at nominal and peak disposal rates. The facility shall have a Site Manager and Environmental compliance Officer who should be identified by name and their duties described. Describe the types of annual training provided to all employees.
- c. Hazardous waste exclusion and special waste screening program. The screening program shall identify procedures and personnel responsible for identifying hazardous and special waste, by testing or reviewing data submitted by waste generators. The hazardous waste exclusion program shall exclude and properly manage regulated hazardous waste (40 CFR Part 261, HAR 11-261) and regulated TSCA waste (defined by 40 CFR Part 761). At a minimum, the hazardous waste exclusion program shall include random inspections, documentation of the inspections, training, and notification to the State Department of Health, in accordance with HAR 11-58.1-15(a).

The program should also specify special handling procedures for identified special wastes, which include and are not limited to the following waste subgroups:

- (1) Asbestos (procedure should be in accordance with 40 CFR Part 61);
 - (2) Water separation, car and equipment washes;
 - (3) Sewage sludge;
 - (4) Off specification and outdated products;
 - (5) Underground storage tank and other sludges;
 - (6) Resins and chemical debris;
 - (7) Petroleum and other contaminated soils;
 - (8) Petroleum fuel contaminated debris;
 - (9) Sandblast grits;
 - (10) Baghouse dusts;
 - (11) Inorganic filter cakes;
 - (12) Paint waste from removal, construction and demolition;
 - (13) Treated poles and lumber;
 - (14) Empty containers;
 - (15) Infectious Waste (commercial waste shall be treated in accordance with HAR 11-104);
 - (16) Food waste, cooking oils, and grease trap waste (shall meet liquids restriction criteria);
 - (17) Dead animals and offal;
 - (18) Materials that are of toxic nature, such as insecticides, pesticides, poisons, or radioactive material, unless properly managed or treated prior to disposal; and
 - (19) Other contaminated solid waste that are non-hazardous, non-TSCA regulated waste.
- d. Greenwaste, scrap automobile, white goods, and tires diversion and exclusion program. Submit a plan to ban or require source separation of green waste from entering the landfill. If, based on data submitted, 75% of all commercially generated greenwaste and 50% of all residential green waste are not achieved, then all commercial and residential greenwaste shall be banned for the landfill. Scrap automobiles, white goods and tires shall not be accepted by the landfill. Submit a plan to implement this ban.

- e. Temporary storage and final disposition of unacceptable items may be provided at the facility. Discuss whether temporary storage will be provided, for what types of waste, the maximum capacity and duration of the storage, how the waste will be stored, and the final disposition of each type of waste stream.
- f. Cover material requirements of HAR 11-58.1-15(b) requires the placement of six inches of earthen material, or an alternative approved by the director, at the end of each operating day or more frequently as necessary. In addition, inactive waste areas that do not receive waste within a 30 day period shall be covered with intermediate cover, consisting a minimum of 12 inches of earthen material, including daily cover. Intermediate cover shall also be placed over areas that are to have vehicular traffic. Explain the source of daily and intermediate cover material, and the means to ensure adequate quantity and placement of daily and intermediate cover material.
- g. Disease vector control. The landfill shall provide measure to evaluate, prevent or control on-site populations of disease vectors and minimize nuisance conditions. Identify the equipment and methods to be used.
- h. Explosive gases control shall be provided to ensure that the concentration of methane gas does not exceed 25% LEL in facility structures, and does not exceed the LEL at the property boundary. Provide a detailed monitoring plan to ensure that these concentrations will not be exceeded. The plan shall specify the frequency of the monitoring, which is based on the soil, hydraulic and hydrogeologic conditions of the surrounding area and the location of facility structures and property boundaries, and shall at a minimum be quarterly.
- i. Air criteria. The applicant is responsible for obtaining permits and maintaining compliance with any state or federal clean air regulations. Explain whether the landfill is required to meet any requirements of state or federal clean air regulations and generally what procedures and/or equipment will be utilized to ensure compliance with these requirements.
- j. Access control shall be provided to control public access, prevent unauthorized vehicular traffic and illegal dumping of wastes in accordance with HAR 11-58.1. Explain how facility access will be controlled.
- k. Run-on/Run-off control systems shall be designed, constructed and maintained to prevent surface water flow onto the active portion of the landfill during the peak discharge from a 25-year storm, and to collect and control surface water from the active portion of the landfill from a minimum 24-hour, 25-year storm event. Provide designs drawings, a waste sequencing plan, and written procedures to ensure these control systems are properly designed, constructed and maintained. Any surface water that comes into contact with waste shall be treated as leachate.
- l. Surface water requirements. The applicant is responsible for obtaining permits and maintaining compliance with any state or federal clean water regulations. Explain whether the landfill is required to meet any requirements of state or federal clean water regulations and generally what procedures and/or structures will be utilized to ensure compliance with these requirements.
- m. Liquids restrictions. In accordance with HAR 11-58.1-15(i), bulk or noncontainerized liquid are restricted from disposal. Explain the procedures that will be taken to ensure bulk or noncontainerized liquids are not accepted.

- n. Litter control mechanisms shall be designed and implemented to minimize free litter in the landfill and prevent its occurrence beyond the property line of the facility. Identify methods and equipment to be utilized. At a minimum, explain the:
 - 1. Design of portable litter screens, the number of screens available at the site, and a description of how they will be deployed under various operating conditions;
 - 2. Design and location of permanent or semi-permanent litter screens or fences; and
 - 3. Procedures for litter prevention and cleanup during the course of a normal workday, and in the event of a major windstorm or other incident in which litter escapes the litter containment systems.
- o. Mud and dust prevention program that minimizes the tracking of mud onto public roads, and the generation of dust from vehicular traffic and landfill operations, shall be developed. The program should contain measures related to on-site road maintenance and cleaning, wet-weather disposal area, and truck washdown or truck wheel cleaning area to remove mud prior to leaving the site. Possible methods include rumble strips, drive-through tire wash, trash clean-out pad or wash pad. Describe the method(s), equipment and procedures that will be utilized to prevent off-site tracking of mud and the generation of dust.
- p. Odor control program that details procedures for monitoring, documenting, and mitigating odors at the landfill should be developed.
- q. Emergency operating procedures should be prepared for the following minimum situations:
 - 1. Above ground fires,
 - 2. Below ground fires,
 - 3. Rain and inclement weather, and
 - 4. Hazardous material spills.

Explain the procedures that will be followed to prevent and respond to these situations. If these procedures requires the use of equipment or supplies, discuss the availability of these equipment/supplies and maintenance of such equipment to ensure its proper function.

- r. Recordkeeping requirements. In addition to the recordkeeping requirements of HAR 11-58.1-15(j), the facility should also document the volume or weight of each type of waste received, rejected, and/or disposed; the source of waste; the number of vehicles disposing of waste; the management of the accepted waste if required special handling; quantities of leachate generated and how it was disposed; and major incidents, such as fires, explosions or heavy rain conditions, and procedures taken. An annual report shall be submitted to the Department reporting the quantities and types of waste received and processed; the and the ultimate disposal site.
4. **Groundwater Monitoring Plan.** Submit a groundwater monitoring plan that provides detailed procedures that complies with the requirements outlined in HAR 11-58.1-16 and the *Hawaii Landfill Groundwater Monitoring Guidance Document*, dated September 2002. The guidance document may be found at <http://www.state.hi.us/health/environmental/waste/sw/index.html>. The groundwater monitoring plan shall be prepared by a qualified groundwater scientist. The plan shall clearly describe and justify the validity of the monitoring well network, including the number of wells, locations and depths; monitoring well construction; and certification by the qualified groundwater scientist that the system is representative of groundwater quality.

The plan shall also describe the detection and assessment monitoring programs, and corrective action steps. The detection and assessment programs shall include specific procedures to be followed throughout the detection and assessment periods, including by not limited to, sample collection, sample preservation and shipment, analytical procedures, chain of custody control, quality assurance and quality control, sample frequency, result validation, result evaluation and statistical assessment. The corrective action plan shall include but is not limited to procedures relating to notification, selection of remedy, schedule, and financial assurance mechanisms for corrective action.

1. Site Analysis

Since this is an Application for a Permit Renewal with No Modification, there was no site analysis completed.

2. Facility Design (Engineering Report)

Since this is an Application for a Permit Renewal with No Modification, there was no engineering design report completed.

3. Operating Plan

See attached *Operating Plan, West Hawaii Sanitary Landfill, Waikoloa, Hawaii (WMH and Earth Tech 2008)*.

4. Groundwater Monitoring Plan

See attached Groundwater and Leachate Monitoring Plan, West Hawaii Sanitary Landfill, North Kona, Hawaii, GeoSyntec Consultants, October 2007.

ATTACHMENT P-4
CLOSURE AND POST-CLOSURE PLAN

**ATTACHMENT P-4
CLOSURE AND POST-CLOSURE PLAN
LANDFILL FACILITIES
SOLID WASTE PERMIT APPLICATION**

All landfill facilities are required to prepare and maintain a closure and post-closure plan. Municipal solid waste (MSW) and construction/demolition (C&D) landfills and ash monofills shall meet the requirements of Hawaii Administrative Rules (HAR) Section 11-58.1-17, and are also required to have financial assurance in accordance with HAR Section 11-58.1-18. **The closure plan** shall include, but is not limited to, the following information:

1. A description of the steps necessary to close all landfill units at any point during its active life.
2. A description of the final cover design and the methods/procedures for cover installation. For MSW and C&D landfills, the design shall be in accordance with Hawaii Administrative Rules (HAR) Section 11-58.1-17(a). For special waste landfills, the final cover system shall provide protection to human health and the environment, based on the risks associated with the disposed waste.
3. An estimate of the largest area of the landfill unit ever requiring a final cover, at any time during its active life.
4. An estimate of the maximum inventory of wastes (in weight and volume) ever on-site over the active life of the landfill facility.
5. A contaminant release log during the life of the site and results of any environmental sampling at the site should be included as part of the closure planning. The Director of Health may require complete and detailed plans or reports (i.e. site assessment, remediation plans) on solid waste facilities in the event of any releases and/or incidences at the facility.
6. A schedule for completing all activities necessary to satisfy the closure plan. The facility must comply with the scheduling requirements provided in HAR 11-58.1-17(a) for MSW and C&D landfills.

The post-closure plan shall include, but is not limited, to the following information:

1. A description and frequency of the monitoring and maintenance activities associated with integrity and effectiveness of the final cover system, operation of the leachate collection and surface water systems, and monitoring of groundwater and landfill gas.
2. Name, address, and telephone number of the person or office to contact about the facility during the post-closure period.
3. A description of the planned uses of the property during the post-closure periods. The post-closure use shall not impact the integrity of the cover system and any of the monitoring systems.

Copies of **financial assurance documents** demonstrating compliance with HAR 11-58.1-18 shall be submitted for all MSW and C&D landfills, and ash monofills, except those owned and operated by the state or federal government. The documents shall include the cost estimates, in current dollars, of the cost of hiring a third party to close the largest area of all the landfill units at any time of its active life; the cost of hiring a third party to conduct post-closure care activities throughout the post-closure care period; and a demonstration that the funds necessary to meet the costs of closure and post-closure care will be available whenever needed. The demonstration provided is limited to the allowable mechanisms listed in HAR 11-58.1-18.

Attachment P-4

The existing Closure/Post Closure Plan for the facility is dated August 1993. This plan has been revised and is attached for review and approval.

ATTACHMENT P-5
ZONING CLEARANCE FORM

**ATTACHMENT P-5
ZONING CLEARANCE FORM
SOLID WASTE PERMIT APPLICATION**

TO THE APPLICANT:

Please be advised that a requirement for the issuance of a solid waste management permit in Hawaii is that the facility meets local ordinances and zoning requirements, including the recording of its disposal facility with the Bureau of Conveyances.

In order that the SHWB may determine whether the facility is in compliance with local land use policy, **we require that this attachment be completed and signed by the appropriate county land use/planning agency** (on Oahu, contact the Department of Planning and Permitting). No permit will be issued unless this form has been properly completed and returned. If a Use Permit or SMA Permit is required, submit a copy of said permit with this form.

Name of Applicant: County of Hawaii, Department of Environmental Management, Solid Waste Division

Name and Phone Number of primary contact for applicant:

Michael Dworksy
25 Aupuni Street, Hilo, HI 96720 (808) 961-8339

Address of proposed facility:
71-1111 Queen K'ahumanu Highway
Waikoloa, HI 96738
Tax Map Key: 7-1-03:01

Description of proposed facility [e.g., waste processing, waste storage (indoor or outdoor), recycling, composting, waste disposal, etc.): Municipal solid waste sanitary landfill

COUNTY AGENCY APPROVAL

The Current Zoning of the Proposed site for the Proposed Activity / Facility / Operation is:

☒ Allowed Identify Approved Use Permit/SMA, other Restrictions/Limitations: _____

☐ Not Allowed Reason (ex: Use Permit /SMA required, application pending, etc.): _____

Name: CHRIS YUEN

Title: DIRECTOR

Agency: COUNTY PLANNING DEPARTMENT

Signature: Chris Yuen

Date: 4/21/08

ATTACHMENT P-6
PROPERTY OWNER APPROVAL FORM

**ATTACHMENT P-6
PROPERTY OWNER APPROVAL FORM
SOLID WASTE PERMIT APPLICATION**

TO THE APPLICANT:

In order that the SHWB may determine whether the property owner and/or master lessee is knowingly allowing the proposed solid waste activity, we require that this attachment be completed and signed by the property owner and the master lessee, if appropriate. **NO permit will be issued unless this form has been properly completed and returned.**

Name of Applicant: County of Hawaii Department of Environmental Management

Name and number of primary contact for applicant:

Michael Dworksy

25 Aupuni Street, Hilo, HI 96720 (808) 961-8339

Address of proposed facility:

71-1111 Queen K'ahumanu Highway

Waikoloa, HI 96738

Tax Map Key: 7-1-03:01

Description of proposed facility [e.g., waste processing, waste storage (indoor or outdoor), recycling, composting, waste disposal, etc.): Municipal solid waste sanitary landfill

PROPERTY OWNER / MASTER LESSEE APPROVAL:

I/We certify that I/we have knowledge and approve of the applicant's proposed solid waste management facility for the subject location. I/We further certify that I/we fully understand the requirements under HAR Chapter 11-58.1, Subchapter 6, such that I/we am/are also responsible for the aesthetic, nonhazardous, sanitary storage, and removal of solid waste to approved solid waste management facilities.

If the property owner/master lessee is a partnership or group other than a corporation, a county, or state entity, one individual who is a member of the group shall sign this form. If the property owner/master lessee is a corporation, a county, or a state entity, an officer of the corporation, or an authorized representative of the county or state shall sign this form.

Property Owner:

Name of Authorized Representative: <u>Bobby Jean Leithhead Todd</u>	
Signature: <u>Bobby Leithhead Todd</u>	Date: <u>4/18/08</u>
Title: <u>Director, Dept. Env. Mgmt.</u>	Telephone: <u>808-961-8083</u>
Company Name: <u>County of Hawaii</u>	Termination date of
Address: <u>25 Aupuni Street</u>	lease/approval: _____

Master Lessee:

Name of Authorized Representative: <u>Joseph R. W. Kelan</u>	
Signature: <u>Joseph R. W. Kelan</u>	Date: <u>4-21-08</u>
Title: <u>V.P. General Mgr.</u>	Telephone: <u>808 668 2985</u>
Company Name: <u>Waste Mgmt. of Hilo, Inc.</u>	Termination date of
Address: <u>92-460 Farrington Hwy.</u>	lease/approval: <u>N/A</u>
<u>Ka Pōlei, HI 96707</u>	